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AUTHOR Nettles, Michael; And Others
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ABSTRACT

Academic, personal, and attitudinal/behavioral predictors of black and white students' college performance were studied, along with the effect of differences in the quality of college experiences. The sample of 4,094 students and 706 faculty from 30 southern and eastern colleges completed the Student Opinion Survey/Faculty Opinion Survey, the Student Descriptive Questionnaire, the College and University Environmental Scale, and the Higher Education Evaluation KIT. A total of 31 student, faculty, and institutional variables were used in a regression equation to predict students' college grade point averages (GPA). While most of the significant predictors of GPA were equally effective predictors for black and white students, four variables had differential predictive validity for the two races: Scholastic Aptitude Test scores, student satisfaction, peer relationships, and interfering problems. Predictors that helped to explain racial differences in college performance included high school attended and college preparation, majority/minority status in college, where students live while attending college, academic integration, feelings that the university is racially discriminatory, satisfaction with the university, and interfering problems with study habits. A list of student factors and correlation coefficients is included. (SW)

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A Comparative Analysis of the Predictors of Black and White Students' Academic Achievement in College: A Case for Expanding Admissions Policies to Include Quality of the College Experience

Authors

Michael Nettles
Research Scientist
The Educational Testing Service

A. Robert Thoeny
Associate Director Academic Affairs
Tennessee Higher Education Commission

Erica Gosman
Research Associate
Western Interstate Commission on Higher Education

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Michael Nettles

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ASHE Association for the Study of Higher Education
The George Washington University/One Dupont Circle, Suite 630/Washington, D.C. 20036
(202) 296-2597

This paper was presented at the Annual Meeting of the Association for the Study of Higher Education held at the Palmer House Hotel in Chicago, Illinois, March 15-17, 1985. This paper was reviewed by ASHE and was judged to be of high quality and of interest to others concerned with the research of higher education. It has therefore been selected to be included in the ERIC collection of ASHE conference papers.

Introduction

Ever since the 1954 landmark Supreme Court case of Brown v. The Board of Education of Topeka, Kansas, efforts have been made to bring about greater desegregation at all levels of formal education. As a result of the gradual elimination of racially discriminatory barriers to higher education, more Blacks began attending college in the 1960's and 1970's. In fact, even though those two decades were the greatest overall enrollment growth years in the history of American higher education, Black enrollment increased more than twice as much as total enrollment. In 1965, for example, Black undergraduates represented 4.8% of all undergraduates in the United States, compared to 10.2% in 1980 (Bureau of the Census, 1983). This remarkable increase in Black enrollment appears on the surface to herald a great movement toward the achievement of equality in higher education. However, an examination of students' college performance reveals that some formidable challenges remain to be faced by American colleges and universities in the quest to achieve equality.

Because of the enormous increase in the interest of minority students in attending college, many barriers to access have been challenged. Perhaps none has been challenged as strongly as traditional admissions standards of colleges and universities. Throughout the 1960's and 1970's, there were many debates regarding traditional college admissions policies that were viewed by many as being racially and socioeconomically discriminatory. On one side of the issue were the advocates of more liberal admissions policies that would offer greater promise for increasing minority access to higher education. These advocates argued in favor of nontraditional predictors of college performance, suggesting that students'

college performance could not be predicted upon the basis of their performance on college entrance tests alone; rather, a variety of student characteristics would serve as better indicators of potential college achievement. This view was supported by several researchers who suggested that the significant predictors of Black students' performance were different from the predictors for White students. Kenneth Clark and Lawrence Plotkin (1964) discovered that for Black students entering predominantly White universities, success in college was dependent upon their motivation and goals regardless of their precollegiate performance or entrance examination indices. Lewis Beasley and William Sease (1974) discovered that students' biographical characteristics and their extracurricular participation in student government or music, speech, science, math, art or writing organizations, as well as their reasons for attending college, were all valid in predicting Black students' college grade point averages and persistence. The findings of Beasley and Sease were supportive of similar findings in earlier studies conducted by Anastasi (1960) and Aiken (1964). Other researchers, such as Sedlacek and Brooks (1972), Gibbs (1973), and Pruitt (1973), recommended that such measures as educational aspirations, motivation, precollegiate preparation and experiences, and social and academic support be used as alternative admissions criteria to traditional standardized tests, high school rank and high school grade point averages for Black students' college admission.

During the same time period, counter arguments were advanced by several researchers who gave little or no attention to the validity of the nontraditional admissions criteria suggested above. Rather, these researchers focused upon showing the predictive validity of standardized entrance tests for both Black and White students' college performance.

Thomas and Stanley (1969) reported on the basis of correlational analyses that aptitude tests are better predictors of the college performance of Black students than high school grades. Studies conducted by Stanley and Porter (1967), Munday (1965) and Cleary (1969) found no significant racial differences in the value of standardized entrance tests and other precollegiate academic characteristics (i.e., high school grades and rank) as predictors of college performance. Thus, these researchers supported the view of maintaining traditional admissions criteria as valid predictors for both minority and majority population groups.

During the latter years of the 1960s and throughout the 1970s, many colleges and universities adopted open admissions policies in order to provide opportunities for everyone who desired to pursue a college education. By 1970, it was estimated by McDaniel and McKee (1971) on the basis of extensive surveys of colleges and universities that over 80% of American colleges and universities had adopted open admissions or some form of special admissions policies for black students. There are many reasons for the open-door movement--funding formulas based upon student credit hours and the Great Society Programs of the 1960s to name just two. Efforts to desegregate higher education also played a role in admissions policy development in the 1960s and 1970s. In the 1980s, however, greater pressure is being applied to college administrators to reduce cost and increase quality. Higher admissions standards are believed by many to be the best means to achieve both cost reduction and higher quality. However, higher standards also result in fewer students being educated at the college level. This movement necessitates a reexaminmation of the factors that predict success in college that should be considered among admissions

criteria. This is especially important if the performance of different population groups is predicted on the basis of different sets of criteria.

In a comprehensive review of population validity studies involving college entrance examinations and various population groups, Hunter Breland (1978) discovered that the great majority of research concludes that when identical regression equations using traditional admissions criteria (particularly SAT and ACT scores) are applied to Black and White students, the tendency is to overpredict the college performance of Black students. This suggests that while the same predictors may be adequate for students of both races, it also suggests that some events may occur during the college experiences of Black students that cause surprisingly lower performance levels than would be predicted by regression equations utilized for White students. This further implies that noncognitive variables which describe the college experience may have some impact upon students' college performance, particularly for Black students.

Population validity studies like the ones cited above generally have several limitations that cause attenuation in correlation coefficients (Cohen & Cohen, 1975; Breland, 1978). First is the problem of locating and stablizing criterion variables. In the case of studies of college admissions, the criterion variable is usually college grade point average in the freshman year or cumulative grade point average beyond the freshman year. These serve as the best available proxies of college students' academic and cognitive achievement, yet instability is caused by their representation of different types of students taking different types of courses from different instructors who utilize different instructional and grading techniques. This problem is compounded when pooled samples are utilized representing a variety of institutions with different standards

and programs. Another common problem of population validity studies in which GPA is the criterion variable is the restriction of range due to limited admissions and attrition, which also results in attenuation of correlation coefficients. In other words, if a larger number of students were admitted with lower cognitive skills, and if no or less attrition occurred, the relationship between predictor variables and criterion variables would be stronger.

A third problem is that of the time interval between the criterion measurement and the occurrence of the predictor variable. The greater the time between these two measures, the greater the likelihood of occurrence of extraneous factors that confound validation. One reason why freshman grade point average is the most commonly used criterion variable is that the time lapse between measurements is small.

The final confounding effect is likely in population validity studies in which the criterion variable is subject to systematic bias. Systematic bias is difficult or impossible to identify, but is most suspected when the rater is of different gender or race than the person(s) being rated.

These limitations in population validity studies are typical of limitations in all correlation studies in educational and social science research. While these limitations cause imperfection in the measure of criterion variables, they do not interfere with the usefulness of these analyses in understanding students' college performance. The current study attempts to reduce the effect of time lapse between predictor and criterion measures by including a variety of student in-college experiences, faculty attitudes and behaviors, and institutional characteristics that are typically excluded. An attempt is also made to reduce the effect of systematic bias, typically race and gender, by including these two

variables in the regression equations; thus, any significance of these two predictor variables may indicate the existence of bias. The restriction of range due to limited admissions and high attrition rates, as well as the imperfection of the criterion variables, are not possible to control. However, the criterion variable of college grade point average represents the best currently available proxy of cognitive development and academic achievement in college. This can only be changed if standard outcomes assessments are developed to measure students' academic achievement.

Since much of the focus of earlier research on higher education desegregation was on increasing enrollment and access, it was perhaps appropriate for earlier studies to concentrate upon students' intellectual entering qualities. It is important in the context of predicting students' college performance and achievement, however, to broaden the scope to include noncognitive and campus enironmental variables that affect students' learning and performance outcomes, such as students' in-college attitudes and behaviors, faculty attitudes and behaviors, and other institutional characteristics. Studies of student retention have shown that the college environment and other institutional factors are important considerations in predicting students' college performance (Astin, 1975; Tinto, 1975). The implication here is that it is important to understand a great deal more than precollegiate biographical and intellectual factors in order to explain students' overall college performance.

In addition to racial equality in student performance, another major challenge in higher education desegregation is the equality of the college experiences of Black and White students. The college experiences of both Black and White students have changed over the past two decades during the process of desegregation. Marvin W. Peterson, et al. (1978) depict a high

degree of student activism among Black students on White campuses, most of which resulted from students' dissatisfaction with their university's response (or lack thereof) to their special needs as a new student population group. Peterson describes Black students as feeling a great deal of racial discrimination which many college administrators chose simply to ignore. As a result, Black students demanded changes through any means necessary to receive a favorable response. There is not much evidence of Black student activism on college campuses today. Nonetheless, a major question to be addressed in this article is whether the lack of activism represents the attainment of equality in the college experiences of Black and White students, and to examine the effect of students' college experiences upon their performance.

The data presented and analyzed in this article address the two issues of racial equality in students' performance and equality in their college experience. The article addresses three specific questions: (1) Is there a difference in the college performance of Black and White students? (2) What are the significant predictors of Black and White students' college performance? (3) How do differences in the quality of the college experiences of Black and White students effect their college performance? The criterion variable of performance is students' cumulative college grade point averages. The predictor variables include a variety of student, faculty and institutional characteristics.

Procedures

This study is based upon analyses of the survey responses of 4,094 students and 706 faculty from thirty college and universities located in the southern and eastern regions of the United States. Both samples are

stratified by race such that 50% of the students are Black and 50% are White; 30% of the faculty sample is Black and 70% is White.

The original student sample was designed to randomly select 300 students from each campus--50 White and 50 Black from each of the sophomore, junior and senior classes for a total of 9,000. However, on several campuses there were not enough students in the minority racial group to select the 50 desired from each class. In these cases, all minority students from those classes were selected and the result was an original sample size of 7,428. The 4,094 responses represent a 55.1% return rate.

The faculty sample was also randomly selected. Thirty faculty members were selected from the total faculty at each of the 30 institutions, with one-third of the sample from each campus representing the minority racial group (Black or White) at that institution. The 706 faculty responses represent a 78% return rate from the original sample.

Because the sampling procedure involved selecting equal numbers of Black and White students at each institution and disproportionate nuombrs of Black and White faculty, a weighting scheme was applied to the data analyses for control oversampling of minority (Whites at Black institutions and Blacks at White institutions) students and faculty at each campus. Students and faculty at small institutions were also oversampled. The formula used to weight each student and faculty response is as follows:

$$\text{Weight} = \frac{\text{\% of students at the institution who are of respondent's race}}{\text{\% of institutional sample who are of respondent's race}} \times \frac{\text{\% of total student population who attend respondent's institution}}{\text{\% of total sample who attend respondent's institution}} \times \frac{N}{En}$$

The 30 universities are equally divided by type and predominant race into the following five categories: (1) large White state universities (flagship); (2) regional White state universities; (3) Black state universities; (4) White large private universities; and (5) Black private universities. The universities are located in 10 southern and eastern states.

Each student in the sample received a survey instrument entitled "The Student Opinion Survey" (SOS), which was designed to collect various personal, academic, demographic and attitudinal data. The SOS was developed specifically for this study but other instruments were used as references in its development. Of particular use were the Student Descriptive Questionnaire administered by the College Board to SAT examinees, the Educational Testing Services' College and University Environmental Scale (CUES II) and the Higher Education Evaluation KIT of the Center for the Study of Evaluation at the University of California, Los Angeles (Pace, 1971). Each faculty member in the sample received a survey instrument entitled "The Faculty Opinion Survey," which was designed specifically for this study.

Methodology

The analyses utilized in this article serve two purposes: (1) to compare Black and White students' college performance and their academic, personal, attitudinal and behavioral characteristics; and (2) to illustrate the predictive validity of a variety of students' academic, personal and attitudinal characteristics as well as faculty attitudes and behaviors. Chi-square analyses are used to compare Black and White students on several categorical variables, F-tests are used to compare students on interval

variables and Multivariate Analyses of Variance (MANOVA) are used to make racial comparisons of groups of similar or related variables. The Pearson Product Moment Correlation procedure is applied to illustrate the relationship of numerous student and faculty variables to student performance without controlling for the effects of other variables. Finally, two types of multiple regression analyses are used to illustrate the significant predictors of students' performance. The first regression is a full model with all variables entered into the equation concurrently to obtain the independent effects of each predictor variable with all others in the model statistically controlled. The resulting partial t-values from this regression are used to eliminate predictors that do not contribute significantly at the .05 level. In the second regression, setwise and stepwise inclusion techniques are combined to isolate interaction terms that add significantly (.05 level) to the reduced model obtained through the first regression procedure. All significant main effects from the first regression are entered concurrently on step one of the second regression. Cross-product interaction terms between race and each of the main effects are then allowed to enter the model in stepwise fashion on subsequent steps if they add to the explanatory power of the equation at at least the .05 level of significance. The result is partial regression coefficients and t-values representing the independent contribution of each significant main effect and each significant interaction effect.

Dependent Variable

The dependent variable in these analyses is students' cumulative college grade point average (ccgpa), which represents a measure of students' overall college performance. This was self-reported by students on the SOS, which asked them to indicate their letter grade equivalent GPA

by choosing one grade from a list of nine. The nine-point scale is 1 = A; 2 = A-; 3 = B+; 4 = B; 5 = B-; 6 = C+; 7 = C; 8 = C-; 9 = D or less. These letter grades are statistically analyzed by using the 9-point ordinal scale.

Independent Variables

This study includes a total of 31 student, faculty and institutional variables in the regression equation used to predict students' college grade point averages. Twenty-three of the variables are students' personal, academic, attitudinal and behavioral characteristics obtained from the SOS. The student variables include demographics, pre-college academic and racial experiences, and in-college attitudinal and behavioral characteristics. The in-college attitudinal and behavioral variables are fctor scales developed from a computerized factor analysis of 72 items from the SOS. Items were included if they correlated at least .35 with the factors. Seven promax rotated factors were selected for inclusion in these analyses. The seven factor scales are (1) academic integration, (2) feelings that the university is nondescriminatory, (3) student satisfaction, (4) peer group relations, (5) interfering problems, (6) study habits, and (7) socioeconomic status. Chronbach's alpha coefficients (1951) measuring internal consistency reliability (Chronbach, 1951) ranged from .66 to .82 for the seven student factor scales. The factor items and correlations for the seven student factors, as well as the reliability coefficients, are illustrated in Appendix A.

The remaining 15 student independent variables are as follows: (1) composite SAT score, (2) race, (3) sex, (4) age, (5) high school grade point average, (6) marital status, (7) type of high school attended, (8) number of hours spent working on a job while attending college,

(9) where student lives while attending college, (10) racial majority/minority status, (11) transfer status, (12) number of miles between permanent home and college, (13) racial similarity of high school and college, (14) degree aspirations, (15) whether student worked while attending college.

The faculty variables include five attitudinal/behavioral characteristics of faculty at the 30 universities. These five variables were selected using 53 items and the same type of factor analyses as themes used for the student factors. Chronbach's alpha reliability coefficients for the five factors range from .58 to .83. The factor names, the item correlations with the factors, and the factor reliability scores are listed in Appendix A.

Two institutional characteristics are included as independent variables. These two variables are: (1) predominant race of university and (2) total enrollment. Data for both of these variables were reported directly by the 30 universities.

Findings

To illustrate the bivariate relationships between the dependent and independent variables, Table 1 shows the weighted Pearson Product Moment correlation coefficients (r) for the interval level independent variables in the equation. Since the sample size (4,094 students and 706 faculty) is large, significance at the bivariate level is relatively easy to obtain. This results in statistical significance for relationships that are not very strong. Therefore, the significance levels for the bivariate relationships are excluded from Table 1 since the important point in these bivariate analyses is the size of the correlations.

Table 1

Pearson Product-Moment Correlations and Regression of Students' College Grade Point Average on Student, Faculty and Institutional Characteristics: Full Model of Main Effects

	B[1]	Beta[2]	t	r	N
SAT Score	.003	.233	12.37**	.313	4039
Socioeconomic Status	.000	-.001	-.08	.121	3457
Race (0 = white; 1 = black)	.273	.049	1.84		
Sex (0 = female; 1 = male)	-.160	-.042	-2.86**		
Age	.040	.037	2.02*	.313	4017
High School GPA	.360	.299	18.70**	.410	4020
Marital Status (0 = single; 1 = married)	.357	.053	-3.48**		
Type High School Attended (0 = public; 1 = private)	.230	.040	2.87**		
# of Hours Spent Working on a Job	.019	.014	.66	.030	4008
Where Live (0 = private home or apt.; 1 = on-campus housing)	.150	.039	2.44**		
Racial Minority Status (0 = majority; 1 = minority)	-.634	-.074	-4.21**		
Transfer (0 = yes; 1 = no)	.138	.035	2.40*		
Miles from Permanent Home	-.028	-.020	-1.28	-.010	4017
Fit Between Racial Composition of High School and College (0 = different; 1 = alike)	.056	.014	.98		
Fit Between Racial Composition of Home Neighborhood and College (0 = different; 1 = alike)	.039	.009	.61		
Highest Expected Degree (0 = Bachelor's or less; 1 = Master's or more)	.334	.082	5.70**		
Whether Worked While in College (0 = yes; 1 = no)	.110	.029	1.43		
Academic Integration	.376	.171	9.77**	.192	4040
Feelings of Racial Discrimination	-.269	-.553	-5.19**	.038	4040
Student Satisfaction	.408	.177	9.29**	.043	4040
Peer Group Relations	.116	.050	3.14**	.000	4040
Interfering Problems	-.816	-.344	-20.75**	-.387	4040
Study Habits	.395	.175	10.62**	.303	4040
Faculty Satisfaction with Institution	.012	.015	.660	.064	4040
Faculty Conservative Teaching Style	.029	.011	.51	-.029	4043
Faculty Influence on Student Develop.	-.202	-.120	-5.07**	-.049	4043
Faculty Feelings of Racial Discrim.	.009	.006	.24	.015	4040
Faculty Contact with Students	.005	.048	1.37	.034	4040
Predominant Race	.104	.027	.64		
Total Enrollment	.000	-.033	-1.02	-.158	4043
Constant	5.92				
F_2(equation)		83.02**			
R^2		.447			

* Significant at the .05 level (two-tailed)
** Significant at the .01 level (two-tailed)

[1]Unstandardized regression coefficient
[2]Standardized regression coefficient

The weighted Pearson correlations reveal some interesting relationships between student and faculty characteristics and attitudes and students' cumulative college grade point averages (ccgpa). The strongest predictors of ccgpa at the bivariate level are high school grade point average (r = .410), interfering problems (r = .387), SAT score (r = .313), age (r = -.313), study habits (r = .303), academic integration (r = .192), total enrollment (r = -.158), and socioeconomic status (r = .121). According to these correlation coefficients, students with high cumulative college grade point averages have high high school grade point averages, have a low number of interfering problems while attending college (financial, social and psychological), have high SAT scores, are younger students, have relatively good study habits, have high academic integration, attend smaller universities and have relatively high socioeconomic status backgrounds. The remaining nine variables in the Pearson analyses yield very low relationships to students' cumulative college grade point average. This is especially important regarding such student factors as feelings of racial discrimination (r = .038), students' peer group relations (r = .000), and students' satisfaction with their institution (r = .043). It is also interesting that at the bivariate level, none of the five faculty scales have a strong relationship with ccgpa--ranging from only r = .064 to r = .015.

The multivariate regression results also shown in Table 1 provide stronger inferences than the correlations because they show the independent effect of each variable in the equation while all others are simultaneously controlled. Multivariate regression analyses are considered to be more discriminant than individual correlations and therefore are more useful in determining significant predictors of ccgpa. The multivariate regression

also allows for the inclusion of dichotomous categorical variables that could not be analyzed through the Pearson correlation procedure.

Table 1 illustrates seventeen significant predictors of students' ccgpa in the full model of main effects. The results of the multivariate analyses differ in some important ways from the results of the bivariate analyses. Many of the variables that have very low direct relationships at the bivariate level, are significant at the multivariate level and others with high direct correlations at the bivariate level are nonsignificant when the effects of other variables in the regression equation are controlled. The multivariate regression analysis in Table 1 reveals that, in order of importance, students with high ccgpa: (1) have low feelings of racial discrimination, (2) have a low number of interfering problems, (3) have high high school grade point averages, (4) have high SAT scores, (5) have high satisfaction with their university, (6) have relatively good study habits, (7) have relatively high academic integration, (8) attend institutions where faculty have a low level of influence upon student development, (9) have degree aspirations beyond the Bachelor's degree, (10) are members of the racial majority on their campus, (11) are married, (12) have relatively strong peer relationships, (13) are female, (14) attended a private high school, (15) live in on-campus housing, (16) are older students, and (17) are non-transfer students. The only two variables that have a relatively high correlation with ccgpa but are nonsignificant in the regression analysis are socioeconomic status and total enrollment. In other words, when controlling for all other factors in the equation, students' socioeconomic status and the size of their institution are not significant predictors of their ccgpa. This suggests that parents' education, occupation and income, which are the components of

the SES factor, are not contributors to students' college performance if all other matters (i.e., high school preparation, feelings of discrimination, interfering problems, etc.) are equal. Likewise, all things considered, students' grades are not dependent upon whether they attend a large university or a small college.

On the other hand, four variables that have very low correlations with ccgpa at the bivariate level are significant at the multivariate level. These include three student factor scales--student satisfaction, feelings that the university is racially non-discriminatory and peer group relations--and one faculty factor scale--faculty influence upon student development. In other words, with all of the other variables held constant, students who feel that their university is not racially discriminatory, who are satisfied with their university, and who have strong peer group relations have higher ccgpa's. Also, students at universities where faculty have relatively little influence upon student development have higher ccgpa's when all else is constant. Some possible explanations for these findings are provided in the discussion section of this paper.

Table 2 illustrates the reduced model regression equation which includes all of the significant variables (.05) from the full model. This regression equation also includes the significant interaction terms wherein race is multiplied by each variable in the equation to illustrate any racial differences in the predictors of ccgpa. While the full model regression equation accounts for 44.7% of the variance in students' ccgpa, the reduced model is a slightly better model accounting for 45% of the variance.

Table 2

Regression of Students' College Grade Point Average on Student, Faculty and Institutional Characteristics: Reduced Model of Significant Main Effects and Interaction Terms

	B[1]	Beta[2]	t
SAT Score	.002	.226	12.67**
Race (0 = white; 1 = black)	-.258	-.049	-.447
Sex (0 = female; 1 = male)	.211	.055	3.78**
Age	.029	.027	1.50
High School GPA	.357	.297	18.14**
Marital Status (0 = single; 1 = married)	.351	.052	3.42**
Type High School Attended (0 = public; 1 = private)	.297	.051	3.88**
Where Live (0 = private home or apt.; 1 = on-campus housing)	.195	.050	3.33**
Racial Minority Status (0 = majority; 1 = minority)	.533	.065	2.39**
Transfer (0 = yes; 1 = no)	.177	.045	3.12**
Highest Expected Degree (0 = Bachelor's or less; 1 = Master's or more)	.358	.088	6.25**
Academic Integration	.390	.182	11.13**
Feelings of Racial Discrimination	-.224	-.079	-4.26**
Student Satisfaction	.506	.224	11.94**
Peer Group Relations	.127	.055	3.60**
Interfering Problems	-.870	-.365	-22.81**
Study Habits	.402	.178	11.31**
Faculty Influence on Student Develop.	.069	.042	2.80**
Interaction Terms:			
SAT x Race	-.001	-.175	-2.07*
Student Satisfaction x Race	.224	.044	2.36*
Peer Group Relations x Race	.178	.033	2.19*
Interfering Problems x Race	-.283	-.049	-3.06**
Constant	6.17		
F_2(equation)		87.96**	
R^2		.450	

* Significant at the .05 level (two-tailed)
** Significant at the .01 level (two-tailed)

[1]Unstandardized regression coefficient
[2]Standardized regression coefficient

Table 2 illustrates that, with the exception of age, all variables that were significant in the full model are also significant in the reduced model. The introduction of interaction terms revealed four significant interactions with race: SAT scores, student satisfaction, peer group relations and interfering problems. The interaction terms demonstrate that these four variables have differential impacts on the ccgpa of Black and White Students. While all four variables are significant predictors of ccgpa for both Black and White students, the interaction terms show that SAT scores tend to overpredict Black students' ccgpa. Student satisfaction, peer group relations and interfering problems all have greater significance as predictors for Black students' ccgpa than White students. These are all important matters explored in the discussion section of this article.

The interaction terms in Table 2 are important in showing how some variables operate differently as predictors of Black and White students' ccgpas. Additional insight can be gained by comparing Black and White students on some of the significant variables included in the regression model. Where there are significant racial differences on significant predictor variables, that helps to explain some of the racial difference in students' ccgpa's. In Table 3 weighted Chi-Square analyses are used to show racial differences on seven categorical variables that are significant predictors of ccgpa. Table 3 shows that Black and White students are significantly different in terms of the type of high school attended, their transfer status, gender representation, majority/minority status, housing patterns, and degree aspirations. Black students are less likely to have attended private high schools, a background charcteristic which is related to high ccgpa. They are also less likely to be in the racial majority on

Table 3

Weighted Chi-Square Tests Comparing Black and White Students

Independent Variables	White Students		Black Students		Chi-Square	d.f.
	%	n	%	n		
Type of High School						
Public	86.3	2945	91.07	599	11.07**	1
Private	13.7	467	8.93	59		
Transfer Status						
Taken courses elsewhere	41.70	1426	34.60	227	11.49**	1
Never taken courses elsewhere	58.30	1994	65.40	430		
Gender						
Female	49.13	1667	61.74	404	34.93**	2
Male	50.87	1726	38.26	250		
Majority/Minority						
Majority Status	98.33	3373	71.73	476	699.46**	1
Minority Status	1.67	57	28.27	188		
Marital Status						
Single	90.82	3036	89.93	588	.505	1
Married or living together	9.18	307	10.07	66		
Housing						
Private Home or Apt. off-campus	43.65	1492	50.29	3331	9.84*	1
On-Campus housing	56.35	1926	49.71	327		
Degree Aspirations						
Bachelors or Less	36.24	1233	20.51	134	60.80**	1
More than a Bchelors	63.76	2169	79.49	521		

**Significant at the .001 level

their college campus and less likely to live in on-campus housing, both of which contribute to high ccgpa. On the other hand, Black students are more likely not to be transfer students and more likely to have degree aspirations beyond a baccalaureate degree, both of which contribute to high ccgpa. They are also significantly more likely to be female, and being female is a contributor to high ccgpa. It would appear from Table 3 that racial differences on three of the categorical variables are likely to have a negative impact upon Black students' college performance--their greater tendency to attend public high schools; their greater tendency to live off-campus; and their greater frequency of attending a university where they are in the racial minority.

Table 4 provides a comparison of Black and White students' ccgpa, high school gpa, SAT scores and socioeconomic status. The F-tests in Table 4 show that Black students have significantly lower ccgpa's (C+ compared to B-), significantly lower high school gpas (B- compared to B+), lower composite SAT scores (819 compared to 1074) and lower socioeconomic status than White students. It is interesting to observe through these analyses that the gap between black and white students' high school grades persists throughout college. Since SES is not a significant predictor of students' college grades, the two most important racial differences in Table 4 are high school grades and SAT scores, both of which are discussed in relation to ccgpa later in this paper.

Table 5 illustrates comparisons of Black and White students on the six student factor scales representing attitudes and behaviors that are significant predictors of ccgpa. Both univariate analysis of variance and multivariate analysis of variance are used to indicate single variable racial differences and vector significance, respectively. Table 5 shows

Table 4

Racial Comparisons of Students' CCGPA's, HSGPAS, Composite SAT and SES

Variable	White Mean	SD	Black Mean	SD	F
Cumulative College GPA	4.41(B-)	1.92	5.34(C+)	1.79	120.20**
High School GPA	2.81(B+)	1.56	3.74(B-)	1.63	191.64**
SAT Score (Composite)	1,073.81	54.85	819.29	133.08	1,551.52**
SES	1.80	2.64	-1.23	3.09	556.83**

Table 5

Multivariate Analyses of Variance of Student's Attitudes and Behaviors

Variable	White Mean	SD	Black Mean	SD	F
Academic Integration	.263	.872	-.161	.972	126.85**
Feelings that the University is nondiscriminatory	.302	.606	.118	.957	41.21**
Student Satisfaction	.337	.814	.226	.907	255.81**
Peer Relations	-.025	.831	-.007	.872	.257
Interfering Problems	-.287	.787	.173	.816	187.44**
Study Habits	.217	.856	-.229	.819	152.37**

Hotelling Lawley Multivariate Test of Significance F = 123.43** df = 4086.00

* Significant at the .05 level
** Significant at the .01 level

that Black students and White students differ significantly in the quality of their college experience. The only attitudinal/behavioral variable showing no significant difference is peer relations. Otherwise, Black students have significantly lower academic integration; are less likely to feel that their university is nondiscriminatory; are less satisfied with their university; have more interfering problems; and have poorer study habits. Each of these racial differences, as well as the overall model, are significant at the .001 level. It was suggested earlier that the lower quality college experience of Black students (as measured by the attitudinal/behavioral factors) may explain why such variables as SAT scores overpredict their college performance. However, this is probably an unsatisfactory explanation since SAT scores were found to be a significant predictor in the regression analyses controlling for the effects of these other factors. It is especially important to note that Black students have lower satisfaction with their university and more interfering problems than White students, since these two factors in particular are strong predictors of Black students' ccgpas. Colleges and universities attempting to address Black students' college performance difficulties should give special attention to these two attitudinal variables.

The data presented above support the following four major conclusions:

1. A variety of students' academic, personal and attitudinal/behavioral characteristics, both pre-college and in-college, are significant predictors of their ccgpa.

2. For the most part, the significant predictors of ccgpa are equally effective predictors for Black and White students. However, four variables--SAT scores, student satisfaction, peer relationships, and interfering problems--have differential predictive validity for Black and White students.

3. Significant racial differences on several significant predictors help to explain racial differences in college performance. The most important are type of high school attended, high school preparation, majority/minority status in college, where students live while attending college, academic integration, feelings that the university is racially discriminatory, satisfaction with the university, interfering problems and study habits.

4. With the exception of faculty influence upon student development, none of the faculty attitudinal/behavioral characteristics included in the analyses exert significant effects upon students' ccgpa.

These four major conclusions are discussed below.

Discussion

The first conclusion, that a variety of students' academic, personal and attitudinal characteristics predict their college performance, is supportive of the arguments advanced by advocates of broader admissions policies for colleges and universities. Researchers have been equivocal in concluding that standardized test scores have racially equal effects upon the college performance. Wilson (1978), for example, found in a study of two college settings that SAT scores in one university had a significantly lower correlation with performance for Black students than Whites in the freshman year, and the differences were even greater for the latter years. The results were the reverse on a second campus measured at the same time. Wilson found similar differential effects for Blacks and Whites when combining standardized test scores with high school grades to predictor college freshman gpa and ccgpa. Although the traditional admissions criteria of high school grade point average and SAT scores are found in the present study to be among the very strongest predictors of both black and white students' college performance, there are many other factors that explain why students perform the way they do in college.

Nevertheless, improvements by Black students in both high school gpa and SAT scores will be likely lead to improved college performance. The improvement in high school preparation of black students is an important public policy concern in need of greater attention. Lee (1985) recently discovered, using the High School and Beyond data base, that only 25% of Black students in America's public high schools are enrolled in academic curricula, compared to 47% of White students. In order to expect improvements in college performance as well as higher SAT scores, the racial gap in high school preparation will have to be eliminated. National reports such as A Nation at Risk and Involvement in Learning provide a sound basis for improving the quality of American education, but much more attention should be directed toward the elimination of the racial gap in the quality of elementary and high school preparation.

Based upon the analyses presented earlier in this paper, colleges and universities' efforts to provide greater access are likely to benefit greatly from incorporating many variables in addition to high school gpa and SAT scores into the admissions and advising processes. For applicants with marginal credentials on traditional criteria, the data reported in Tables 1 and 2 suggest that with a combination of other intellectual and non-intellectual characteristics, many marginal students are likely to be successful in college. On the non-intellectual side, for example, students' decision to live on-campus as opposed to off-campus is found in this study to contribute to high ccgpa's. Studies conducted by Bli (1971), Ainsworth and Maynard (1976), Duncan and Stoner (1977), and Pascarella and Terenzini (1982) have provided consistent evidence that residential peer influence as well as on-campus academic environments have a significant effect on students' college achievement for both high and low aptitude

college students. These studies are particularly convincing in showing the positive effect of residential hall placement upon the performance of low aptitude students when matched as roommates with high aptitude students of similar personality type (Ainsworth & Maynard, 1976). Blimling and Hample (1979) have also found that students living in campus residence halls with structured emphases upon studying improve their academic performance in college.

The on-campus vs. off-campus finding is only one example of the additional considerations needed in admissions and advising processes aimed at promoting greater access and higher achievement. Such additional variables as students' goals and aspirations were also shown in Tables 1 and 2 to be significant predictors of students' performance and are supportive of the findings reported by Clark and Plotkin (1964) and Sedlacek and Brooke (1972). Good study habits are another important characteristic: As might be expected, students with good study habits have higher ccgpas. Astin (1982) discovered that students entering college with well-developed study habits earn higher grades and have higher rates of persistence in college. This finding suggests that efforts by universities to assure that their students possess or learn good study habits will contribute to higher college performance. Poor study habits may also be a major reason for lower pre-collegiate performance. Remedial and developmental efforts to improve the study habits of college students are likely to have a favorable impact upon their college performance regardless of their race.

Among the most important findings reported in this paper are those regarding the student-environment fit as measured by students' feelings that the university is nondiscriminatory, academic integration, students'

satisfaction, peer group relations and interfering problems. These factors measure the quality of the college experience, sometimes referred to as person X environment fit, which is found to exert significant positive effects upon students' college performance. Most research on this subject concludes that the better the fit between the student and his/her institution the better the chances for his/her academic success. Graham et al. (1984), for example, conclude that Black students with interracial educational experience prior to college adjust more easily in White colleges. What Graham observes is a reduction in students' feelings of discrimination as a result of their past experiences in desegregated environments. What is observed in the present study is that lower feelings of discrimination contribute to higher college performance for both Black and White students alike. However, the analyses presented in this article indicate that neither the racial fit between students high school and college nor the racial fit between their home neighborhood and college are related to their ccgpa. This suggests that integrated experiences prior to college may contribute to the college experiences of both Black and White students, but perhaps only indirectly to their academic performance--which may be attributed to their positive college experiences.

Academic integration is a scale which measures students' perceptions about the availability and attitudes of faculty with regard to providing informal and formal contact to discuss school work or career plans and the like. High academic integration has been found to contribute to high ccgpa's. Pascarella and Terenzini (1978 and 1980), for example, found that the actual frequency and quality of student contact with faculty contributed to higher freshman-year grade point averages as well as students' personal and intellectual development. Similar results were obtained by

Astin (1968) and Bean and Kuh (1984). It is interesting that in the present study, however, the faculty factor labeled "faculty contact with students" exerts no significant effect upon students' college performance. There is an important distinction between academic integration and faculty contact. Academic integration represents students' perceptions about the attitudes and behaviors of faculty. Perceptions of favorable attitudes (academic integration) is significantly associated with high ccgpa. On the other hand, the faculty contact scale measures the actual frequency of interaction. The findings in this study suggest that students' perceptions of a high degree of faculty concern for students' academic and career plans are far more important than the actual frequency of interaction between faculty and students. One would believe that faculty contribute greatly to students' feelings of academic integration, but frequency of contact may not be the key ingredient to creating that perception among students. Jean Endo and Richard Harpel (1982), for example, found that informal faculty contact with students had a far greater effect upon attitudes about and satisfaction with their college experience than formal contacts.

The significance of the interfering problems scale as a predictor of lower ccgpa is not surprising, because that scale reflects problems that students may encounter--personal, financial, and family--that directly compete with their academic efforts. While no comparable measure is found in the literature related to students' college grades, such measures are consistently associated with student attrition (A. Astin, 1975; H. Astin & Cross, 1979). As indicated by the interaction terms, this measure is particularly important for Black students and is further compounded by the fact that Black students have significantly lower SES than White students. Thus, improvements in financial aid programs should not only have a

positive effect upon Black students' persistence, but should also have a positive effect upon their academic performance.

Student satisfaction is also a significant predictor of students' ccgpa that is not found in the literature. One difficulty with this satisfaction measure is that one cannot know whether high satisfaction is the result of high ccgpa or vice versa. Like interfering problems, however, high satisfaction has shown a consistent relationship to persistence (Tinto, 1975; H. Astin & Cross, 1979).

The second major conclusion from this study is that four variables--SAT scores, student satisfaction, peer group relations and interfering problems--have differential predictive value for Black and White students. Specifically, Black students' college grades are lower than would be predicted by their SAT scores; and satisfaction, peer relations and interfering problems have a much greater impact upon their ccgpas than do these same factors for White students.

Since the effects of such factors as feelings of discrimination and racial minority status are controlled, as well as the effects of other college experience measures, it is not reasonable to explain that the overprediction of Black students' college grades through SAT scores is due to their differential college experience (as hypothesized earlier in this paper). This overprediction of Black students' performance, as well as the lower ccgpa of Black students, is very important and will need more focused analyses in order to be clearly understood. As a start, it may be useful to study Black students' aspirations for grades in comparison with students of other racial/ethnic groups, or to discover if some form of systematic bias exists in the grading process that is not measured by the variables in this study. However, contrary to findings of a recent study by Roueche et

al. (1984), high school performance serves as a strong and stable predictor of both Black and White students' college performance, and is a more stable predictor for Black students' ccgpa. Again, a major concern of great consequence for the desegregation process is that Black students have significantly different pre-collegiate educational experiences than White students, and these experiences may be partially reflected in their SAT scores.

The observed interactions between race and student satisfaction, peer relations and interfering problems and the relationships of these variables to ccgpa demonstrate the need for greater sensitivity on the part of colleges and universities to the particular needs of Black college students. The data in Table 5 illustrate that Black students experience significantly less satisfaction with their university than White students and have significantly greater interfering problems. On the other hand, there is no significant difference in their peer group relations. Despite the absence of visible and widespread student protests in the 1980s (as described by Marvin Peterson in the early 1970s), there are differences in the quality of Black and White students' college experiences that appear to have a negative impact upon Black students' performance. These differential experiences represent major challenges for colleges and universities in the desegregaton process.

There are additional racial differences on other variables that are equally significant predictors of ccgpa for students of both races. This brings us to the third major conclusion of this study--that the racial differences on several significant variables may account for racial differences in students' ccgpa. Black students have significantly lower levels of pre-college preparation than White students, are less

academically integrated, have less satisfaction with their university, experience more interfering problems and have less well-developed study habits. These are matters that must be addressed by educators and policy makers in order to achieve equality in college performance and in the quality of the college experience.

The final general conclusion is that, surprisingly, faculty factors contribute very little to the prediction of students' ccgpas. In fact, only one factor--faculty influence upon student development--is a significant predictor of students' ccgpa and its relationship is counterintuitive--low faculty influence on student development is associated with high student performance. This factor represents faculty members' perceptions about the amount of influence they have upon students' career plans, major field of study, and personal and social values.

The remaining faculty factors exert no significant effect upon students' ccgpa. This is especially interesting in the case of the faculty contact factor which measures frequency of faculty contact with students. The result as reported earlier is contrary to findings by Pascarella and Terenzini (1978; 1980) and Pascarella and Larang (1982), in which frequency of contact is found to be a contributor to students' gpa in the freshman year. On the other hand, this finding is consistent with those of Endo and Harpel (1982), who found that neither the frequency of informal nor formal student-faculty interaction has a significant influence upon academic achievement. In light of the fact that academic integration, which measures students' perceptions of faculty accessibility and interest, is a significant prediction of ccgpa, it is surprising that faculty contact is not. This suggests a clear difference between actual contact as re[prted by faculty and <u>perceived</u> contact and concern as reported by students. In

any case the latter effect is found in this study to be the contributor to students' ccgpa.

Finally, it is surprising that neither teaching style nor faculty satisfaction with their university are significant contributors to students' ccgpa. It has been rather broadly suggested in the literature that nontraditional teaching styles are causes for grade inflation and that students' performance is a major cause of faculty satisfaction. Neither claim is supported by the analyses in this paper. The remaining faculty factor measures feelings that the university is discriminatory, which also does not significantly impact upon students' college performance.

Conclusion

During the 1970s, the vast majority of colleges and universities made extensive efforts to provide greater access to students. Surveys of 3,000 colleges and universities conducted by John E. Roueche (1977) reveal that even the most prestigious institutions have not only admitted greater numbers of students but have also developed special programs and services to assure that admitted students succeed. In fact, in a recent survey by Roueche et al. (1984), only 160 of the 3,000 institutions surveyed reported not having special remedial or developmental programs to help students' academic achievement. It appears, however, that with increasing demands for scarce resources, efforts by universities to provide greater access will be continually challenged.

The data reported in this study are supportive of the validity of traditional admissions criteria--high school grades and SAT scores--for both Black and White students. However, SAT scores are not as strong a predictor for Black students' ccgpa as for White students. Additionally,

several student personal and attitudinal/behavioral characteristics, contribute far too much to the prediction of ccgpa to be ignored in the admissions process. Therefore, colleges and universities should include consideration of both nonintellectual and intellecual factors in the college admissions process.

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APPENDIX A

Student Factors

Student Factors

Item	Correlation With Factor	Item	Correlation With Factor	Cronbach's Alpha Reliability
Student Factor 1: Academic Integration				
1. There is very little contact between professors & students outside the classroom. (1 = strongly agree, 5 = strongly disagree)	.61	6. It is easy to develop close relationships with faculty members on this campus. (1 = strongly agree, 5 = strongly disagree)	-.77	.83
2. Most faculty members here are sensitive to the interests, needs & aspirations of students. (1 = strongly agree, 5 = strongly disagree)	-.61	7. How often have you socialized informally with a faculty member? (1 = very often, 5 = almost never)	-.46	
3. At least one faculty member here has had a strong impact on my intellectual development. (1 = strongly agree, 5 = strongly disagree)	-.45	8. How often have you discussed career plans and ambitions with a faculty member? (1 = very often, 5 = almost never)	-.48	
4. Faculty members here are good teachers. (1 = strongly agree, 5 = strongly disagree)	-.48	9. How often have you discussed personal problems and concerns with a faculty member?	-.46	
5. If a student seems to be doing poorly, this university goes out of its way to help the student stay in school. (1 = strongly agree, 5 = strongly disagree)	-.52	10. Are you satisfied with the faculty-student relations? (1 = very satisfied, 5 = very dissatisfied)	-.71	
Student Factor 2: Feelings of Discrimination				
1. This institution makes an effort to attract students of diverse ethnic backgrounds. (1 = strongly agree, 5 = strongly disagree)	.35	5. Faculty members on this campus are sensitive to issues that are important to students of my race. (1 = strongly agree, 5 = strongly disagree)	.57	.70
2. I often feel discriminated against because of my race by faculty members on this campus. (1 = strongly agree, 5 = strongly disagree)	-.75	6. I often feel discriminated against by students on this campus whose race is different from my own. (1 = strongly agree, 5 = strongly disagree)	.65	
3. There is administrative support of minority group organizations and programs on this campus. (1 = strongly agree, 5 = strongly disagree)	.51	7. There is open discussion of racial issues on this campus. (1 = strongly agree, 5 = strongly disagree)	.36	
4. There is little or no racial discrimination on this campus. (1 = strongly agree, 5 = strongly disagree)	.74	8. The administration on this campus discriminates against students of my race. (1 = strongly agree, 5 = strongly disagree)	-.75	

Student Factors (Continued)

Item	Correlation With Factor	Item	Correlation With Factor	Cronbach's Alpha Reliability
Student Factor 3: Student Satisfaction				
1. Are you satisfied with the student housing at your university? (1 = very satisfied, 5 = very dissatisfied)	-.43	5. Are you satisfied with the student employment services at your university? (1 = very satisfied, 5 = very dissatisfied)	-.40	.74
2. Are you satisfied with your university's academic reputation? (1 = very satisfied, 5 = very dissatisfied)	-.58	6. Are you satisfied with the student organizations at your university? (1 = very satisfied, 5 = very dissatisfied)	-.42	
3. Are you satisfied with the quality of classroom instruction at your university? (1 = very satisfied, 5 = very dissatisfied)	-.42	7. Are you satisfied with the administration at your university? (1 = very satisfied, 5 = very dissatisfied)	-.49	
4. Are you satisfied with the variety of courses offered at your university? (1 = very satisfied, 5 = very dissatisfied)	-.58	8. Are you satisfied with the libraries, learning centers, etc. at your university? (1 = very satisfied, 5 = very dissatisfied)	-.58	
Student Factor 4: Peer Group Relations				
1. It has been difficult for me to meet and make friends with other students. (1 - strongly agree, 5 = strongly disagree)	.40	4. How often have you studied with other students since enrolling in college? (1 = very often, 5 = almost never)	-.41	.65
2. How often have you participated in activities with other students since enrolling in college? (1 = very often, 5 = almost never)	-.71	5. How often have you participated in some art, drama or music activity on campus since enrolling in college? (1 = very often, 5 = almost never)	.38	
3. How often have you attended a meeting of a club, organization or student government group since enrolling in college? (1 = very often, 5 = almost never)	-.63	6. How often have you sat around in the student center talking with other students since enrolling in college? (1 = very often, 5 = almost never)	-.36	
Student Factor 5: Interferring Problems				
1. I have done as well academically at this university as I thought I would. (1 = strongly agree, 5 = strongly disagree)	-.41	4. Have you experienced financial difficulties since enrolling in college? (yes or no)	.56	.61
2. Have you experienced emotional problems since enrolling in college? (yes or no)	.42	5. Problems outside of school cause me to neglect my schoolwork. (yes or no)	.43	
3. Have you experienced academic difficulty since enrolling in college? (yes or no)	.55	6. How difficult is it for you to finance your college education? (1 = not difficult; 5 = very difficult)	.47	

Student Factors (Continued)

Item	Correlation With Factor	Item	Correlation With Factor	Cronbach's Alpha Reliability
Student Factor 6: Study Habits				
1. I see to it that my schoolwork is carefully planned and organized. (1 almost always, 5 = rarely)	-.62	3. I keep my assignments up to date. (1 = almost always, 5 = rarely)	-.57	.66
2. Unless I really like a course I don't work as I should. (1 = almost always, 5 = rarely)	.49			
Student Factor 7: Socioeconomic Status (SES)				
1. Parents' education	.71			.85
2. Parents' income	.73			
3. Parents' occupation	.86			

APPENDIX B

Faculty Factors

Faculty Factors

Item	Correlation With Factor	Item	Correlation With Factor	Cronbach's Alpha Reliability
Faculty Factor 1: Satisfaction with the University				
1. How satisfied are you with opportunities for career advancement at your institution? (1 = very satisfied, 5 = very dissatisfied)	-.54	5. How satisfied are you with the quality of research by faculty on your campus? (1 = very satisfied, 5 = very dissatisfied)	-.70	.83
2. How satisfied are you with opportunities for personal growth at your institution? (1 = very satisfied, 5 = very dissatisfied)	-.56	6. How satisfied are you with resources for instructional programs and courses? (1 = very satisfied, 5 = very dissatisfied)	-.65	
3. How satisfied are you with the quality of students on your campus? (1 = very satisfied, 5 = very dissatisfied)	-.56	7. How satisfied are you with resources for faculty research? (1 = very satisfied, 5 = very dissatisfied)	.65	
4. How satisfied are you with the overall instructional competency of faculty on your campus? (1 = very satisfied, 5 = very dissatisfied)	-.60	8. How would you rate the overall academic reputation of your institution? (1 = very satisfied, 5 = very dissatisfied)	-.65	
Faculty Factor 2: Teaching Style				
1. I strongly encourage students to meet with me outside of class. (1 = strongly agree, 5 = strongly disagree)	.52	4. Black and other minority perspectives should always be included in courses related to American life or institutions. (1 = strongly agree, 5 = strongly disagree)	.45	.58
2. I frequently digress from prepared materials during class to pursue questions or comments from students. (1 = strongly agree, 5 = strongly disagree)	.46	5. Do you invite student criticism of your ideas in class? (1 = almost always, 5 = almost never)	.47	
3. Informal out-of-class contacts with faculty members are crucial to a student's development. (1 = strongly agree, 5 = strongly disagree)	.63			

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Faculty Factors (Continued)

Item	Correlation With Factor	Item	Correlation With Factor	Cronbach's Alpha Reliability
Faculty Factor 3: Faculty Influences Upon Student Development				
1. How much influence do you believe you have upon students' decisions about their major field of study? (1 = a great deal, 5 = almost none)	-.80	4. How much influence do you believe your have upon students' acceptance of people of different racial and ethnic backgrounds? (1 = a great deal, 5 = almost none)	-.38	.80
2. How much influence do you believe you have upon formulating students' career plans? (1 = a great deal, 5 = almost none)	-.82	5. How much influence do you believe you have upon students' personal philosophy and outlook on life? (1 = a great deal, 5 = almost none)	-.43	
3. How much influence do you believe you have upon students' emotional and social development? (1 = a great deal, 5 = almost none)	-.49			
Faculty Factor 4: Feelings of Discrimination				
1. Students of different racial/ethnic origins generally get along well with one another on this campus. (1 = strongly agree, 5 = strongly disagree)	-.54	3. Some faculty members discriminate against students who are the racial minority on this campus. (1 = strongly agree, 5 = strongly disagree)	.49	.69
2. This institution makes a determined effort to attract students of diverse ethnic and social backgrounds. (1 = strongly agree, 5 = strongly disagree)	-.54	4. Many of the policies and practices of this institution are racially biased or discriminatory. (1 = strongly agree, 5 = strongly disagree)	.62	
Faculty Factor 5: Faculty Contact with Students				
1. I have met with ____(no.) students during the past week to provide basic information about their academic programs.	.60	4. I have met with ____(no.) students during the past week to assist them in resolving personal problems.	.57	.66
2. I have met with ____(no.) students during the past week to discuss intellectual or course-related matters.	.68	5. I have met with ____(no.) students during the past week to socialize informally.	.66	
3. I have met with ____(no.) students during the past week to assist them in considering matters related to their future careers.	.62			